



Mitsubishi Electric Automation, Inc.
UPS Group

REMOTE STATUS ALARM PANEL

RSAP

INSTALLATION/INSTRUCTION MANUAL

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Physical Characteristics

Weight: 10lbs (4.5 kgs.)
Height: 8 1/4 inches (210 mm)
Width: 8 5/16 inches (211 mm)
Depth: 4 5/16 inches (110 mm)

Installation

1. Locate the area where the Remote Status Alarm Panel (RSAP) will be installed. The monitor should be within 300 feet (91 meters) of the UPS.
2. Mount the monitor to the wall using the four pre-drilled holes in the back. Use appropriate hardware for the installation.
3. Wiring requirements are: 7 twisted pair 16 AWG cable run in metal conduit. Use Belden Catalog No. 1485B (8 twisted pair) or equivalent. All electrical and mechanical connections to be made per local and/or national electric codes.
4. Connect the conduit to the RSAP by punching the appropriately sized hole in a convenient location.. **Caution!** Care should be taken not to damage any internal components when drilling hole for conduit.
5. Referring to Figure 2.0, 3.0, and the corresponding UPS wiring diagram, connect the seven (7) pairs of twisted wire from the RSAP to the customer accessible alarm contact terminal bar in the UPS module. (Refer to the UPS' owner's manual for location)
6. Referring to Figure 3.0, install (6) AA batteries (included). Batteries will provide about 8 hours of run time in the event of an AC power failure. Replace these batteries yearly for optimum performance.
7. Referring to Figure 1.0, connect the power supply adapter into the corresponding jack located on the bottom left-hand side of the RSAP enclosure. Plug the power supply into a convenient 120V/60Hz wall receptacle. Failure to connect to a suitable wall outlet will drain the RSAP's internal batteries and/or result in damage to the monitor. (If supplied with the hardwire version, please refer to Figure 3.1 for AC input terminal block layout. Connect L1, Neutral, and Ground with minimum of 18awg wire.)

Caution! The monitor must be installed by a qualified electrician. Installation to be inspected by an Authorized UPS Service Engineer at the time of UPS startup.

Operating Instructions

ALARM SILENCE pushbutton is used to silence the alarm.

MONITOR RESET pushbutton is used to reset the RSAP's UPS FAULT alarm. The monitor will alarm again if the alarm condition is still present following the RESET.

Monitor TEST pushbutton is used to check the operation of all LED's and the audible alarm. All LED's that are illuminated will go off and all lights that are off will illuminate. Horn will also sound.

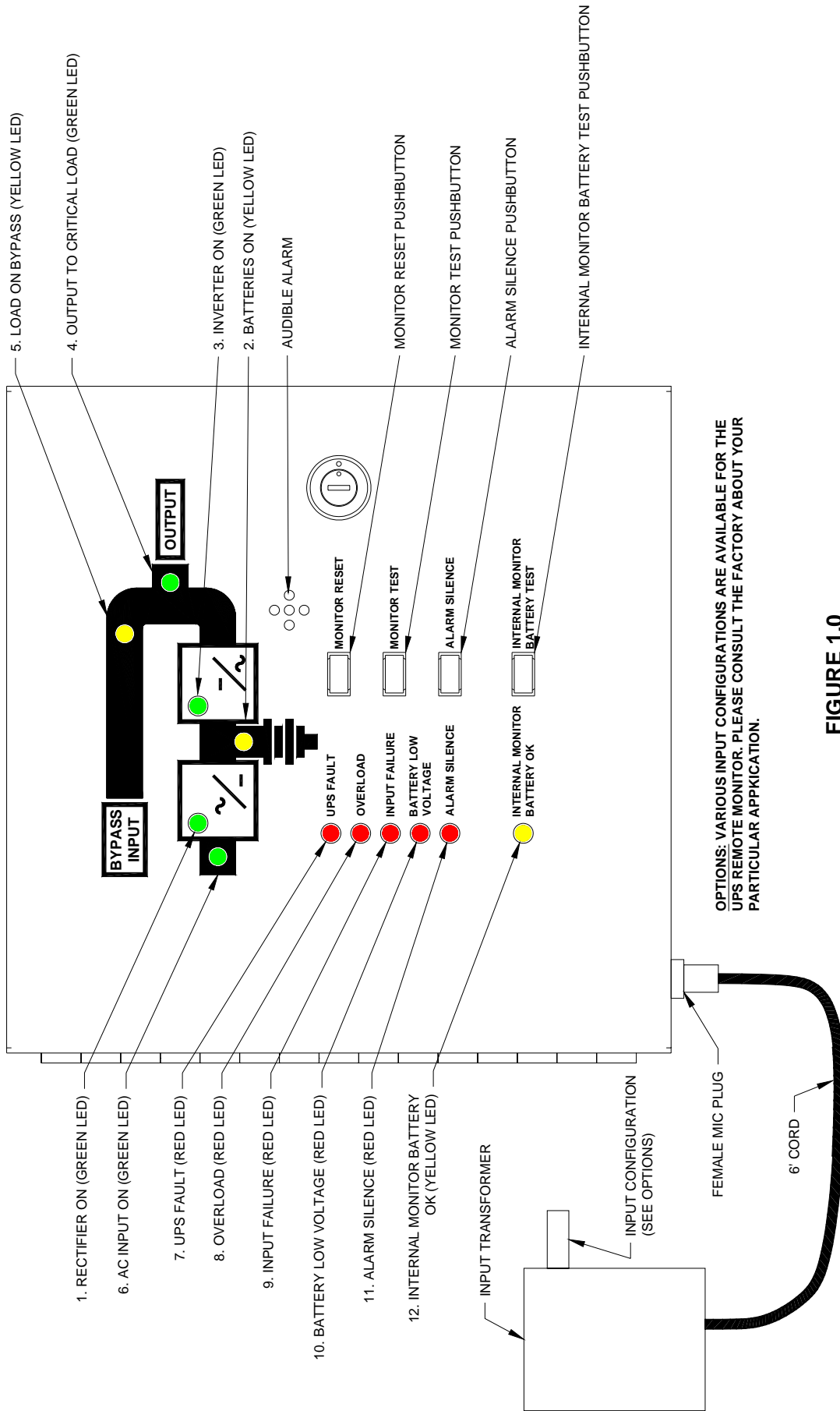
INTERNAL MONITOR BATTERY TEST button is used to test the condition of the monitor's battery pack. If the yellow LED does not illuminate, replace the batteries.

Reset the RSAP as follows:

1. On the UPS, note the alarm and it's fault code. If applicable, contact 24 hour UPS field service at (800) 887-7830.
2. If no alarm code is present, press the monitor reset button.
3. If the monitor's audible alarm sounds again repeat steps 1 and 2.
4. Contact Mitsubishi service if the alarm cannot be reset after a few attempts.

Refer to Figure 1.0 for the location of the LED's and pushbuttons described below:

1. **Rectifier / Charger LED.** This green LED is illuminated as long as the UPS' inverter is operating.
2. **Battery LED.** This yellow LED is illuminated as long as the UPS is in the battery backup mode. The audible alarm will beep intermittently.
3. **Inverter On LED.** The green LED is illuminated as long as the UPS' inverter is operating.
4. **Output LED.** This green LED is illuminated as long as there is power to the critical load. (either by the Inverter or Bypass)
5. **Load On Bypass LED.** This yellow LED is illuminated as long as the critical load is powered by the Bypass.
6. **AC Input LED.** This green LED is illuminated as long as there is AC power supplied to the system.
7. **UPS Fault.** This Red LED is illuminated and the audible alarm sounds when a UPS fault has occurred. The RSAP must be reset after the alarm is cleared.
8. **Overload LED.** This red LED is illuminated when a UPS overload has occurred. The audible alarm will also sound.
9. **Input Failure LED.** This red LED is illuminated when an input power failure condition is present. The audible alarm will also sound.
10. **Battery Low Voltage.** This red LED is illuminated as soon as the DC bus voltage approaches its cutoff voltage. The audible alarm will also sound.
11. **Alarm Silence LED.** This LED will illuminate when the ALARM SILENCE pushbutton has been pressed and alarm condition is still present. If alarm condition clears, the ALARM SILENCE LED will automatically reset.
12. **Internal Monitor Battery OK LED.** This yellow LED will illuminate when it's corresponding push button is pressed and the batteries are OK. If this light is dim or does not light, replace all internal batteries.



OPTIONS: VARIOUS INPUT CONFIGURATIONS ARE AVAILABLE FOR THE UPS REMOTE MONITOR. PLEASE CONSULT THE FACTORY ABOUT YOUR PARTICULAR APPLICATION.

FIGURE 1.0

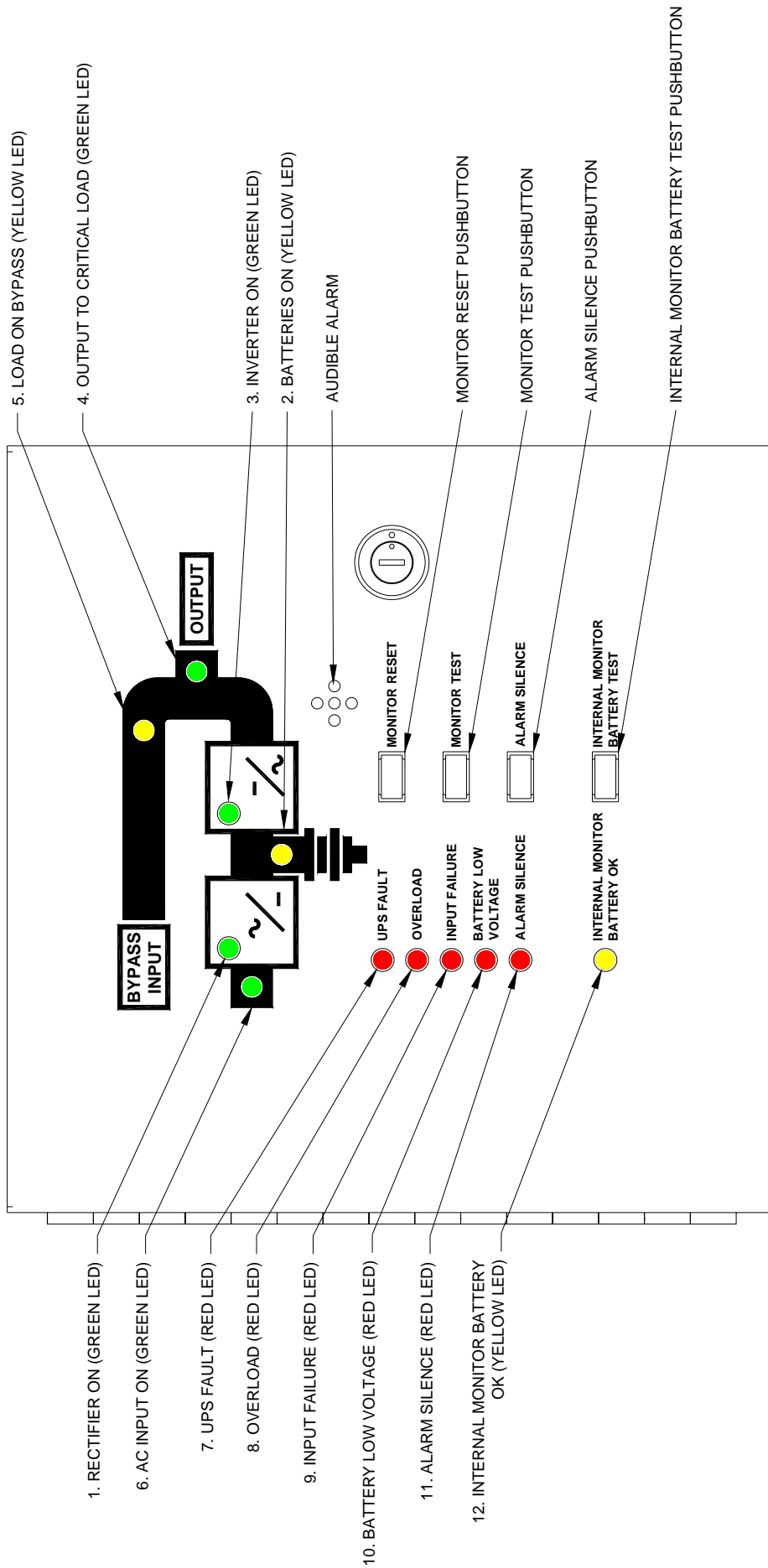




































FIGURE 1.1
(INTERNAL POWER SUPPLY / HARDWARE OPTION)

TB1	
1	 -AC INPUT L1 (OPTION)
2	 -AC INPUT L1 (OPTION)
3	 -BYPASS (CLOSES WHEN ON BYPASS)
4	 -BYPASS COMMON
5	 -INVERTER (CLOSES WHEN INVERTER IS RUNNING)
6	 -INVERTER COMMON
7	 -ON BATTERIES (CLOSES WHEN ON BATTERIES)
8	 -BATTERY COMMON
9	 -RECTIFIER (CLOSES WHEN RECTIFIER IS RUNNING)
10	 -RECTIFIER COMMON
11	 -UPS FAILURE (CLOSES ON UPS FAILURE)
12	 -UPS COMMON
13	 -LOW BATTERY (CLOSES WHEN BATTERIES ARE LOW)
14	 -LOW BATTERY COMMON
15	 -OVERLOAD (CLOSES WHEN IN OVERLOAD)
16	 -OVERLOAD COMMON

**TERMINAL BLOCK DESCRIPTION
(LOCATED INSIDE BOX)**

FIGURE 2.0

1		-AC LINE INPUT L1
2		-AC NEUTRAL INPUT
3		-GROUND
4		-NOT USED
5		-BYPASS
6		-BYPASS COMMON
7		-INVERTER (CLOSES WHEN INVERTER IS RUNNING)
8		-INVERTER COMMON
9		-ON BATTERIES (CLOSES WHEN ON BATTERIES)
10		-BATTERY COMMON
11		-RECTIFIER (CLOSES WHEN RECTIFIER IS RUNNING)
12		-RECTIFIER COMMON
13		-UPS FAILURE (CLOSES ON UPS FAILURE)
14		-UPS COMMON
15		-LOW BATTERY (CLOSES WHEN BATTERIES ARE LOW)
16		-LOW BATTERY COMMON
17		-OVERLOAD (CLOSES WHEN IN OVERLOAD)
18		-OVERLOAD COMMON

**TERMINAL BLOCK DESCRIPTION
(LOCATED INSIDE BOX)**

FIGURE 2.1
(INTERNAL POWER SUPPLY / HARDWIRE OPTION)

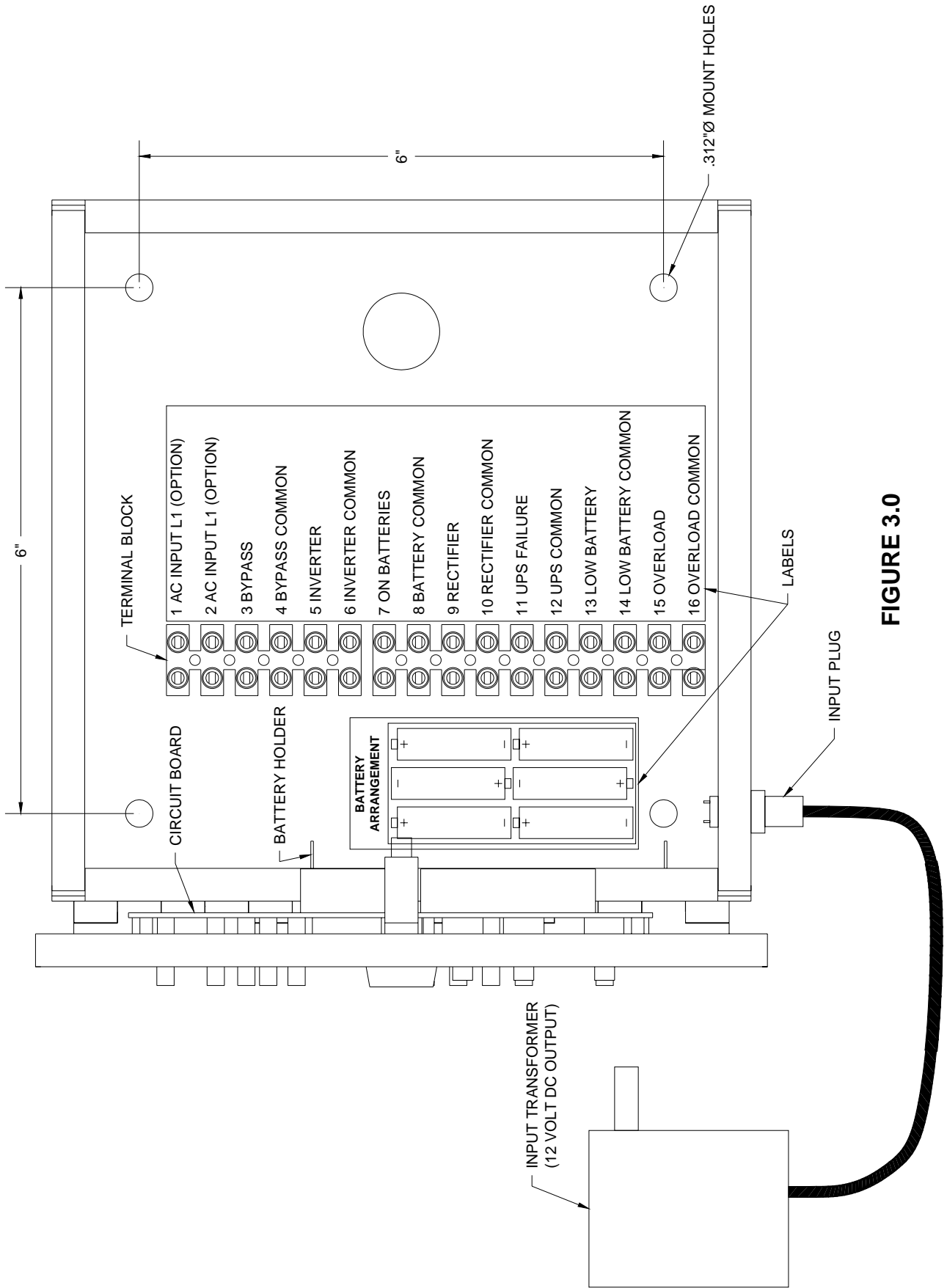


FIGURE 3.0

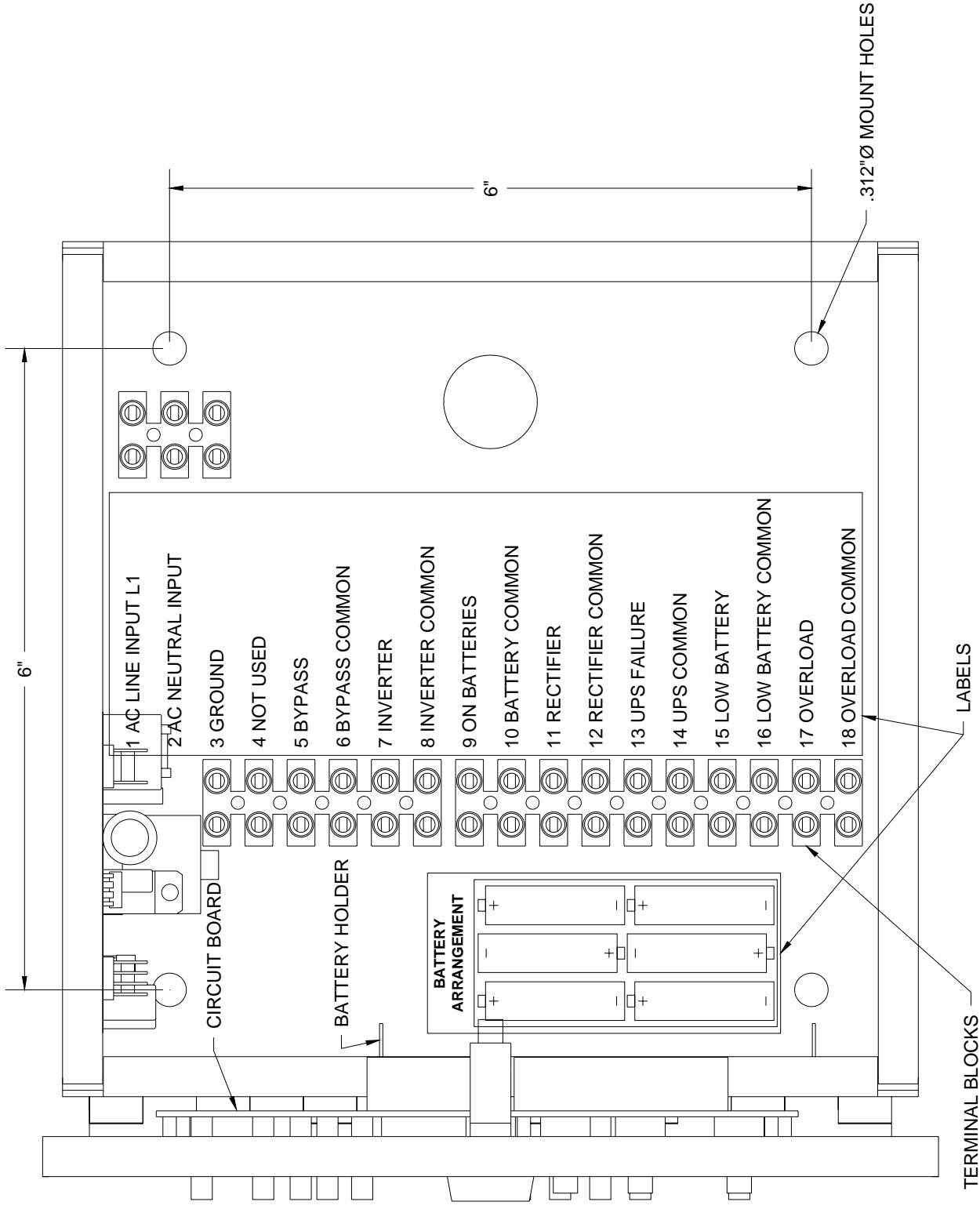
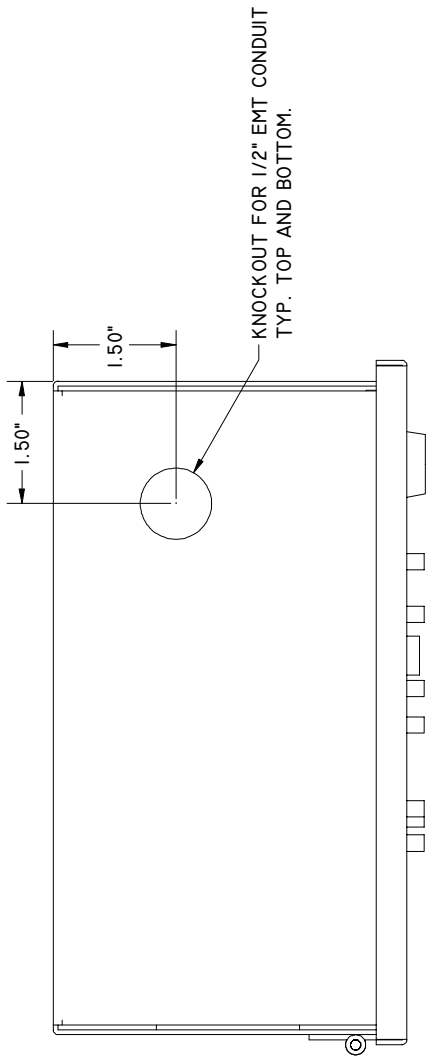


FIGURE 3.1
(INTERNAL POWER SUPPLY / HARDWARE OPTION)



TOP VIEW

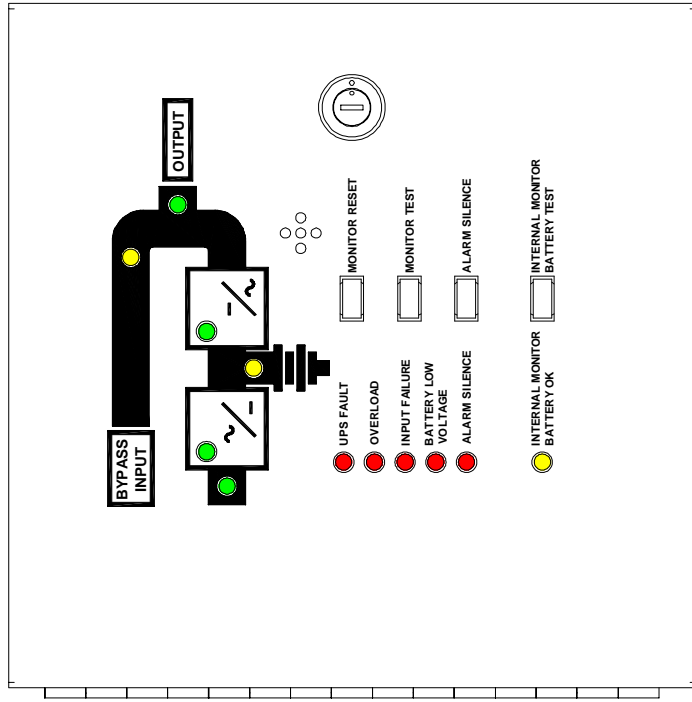
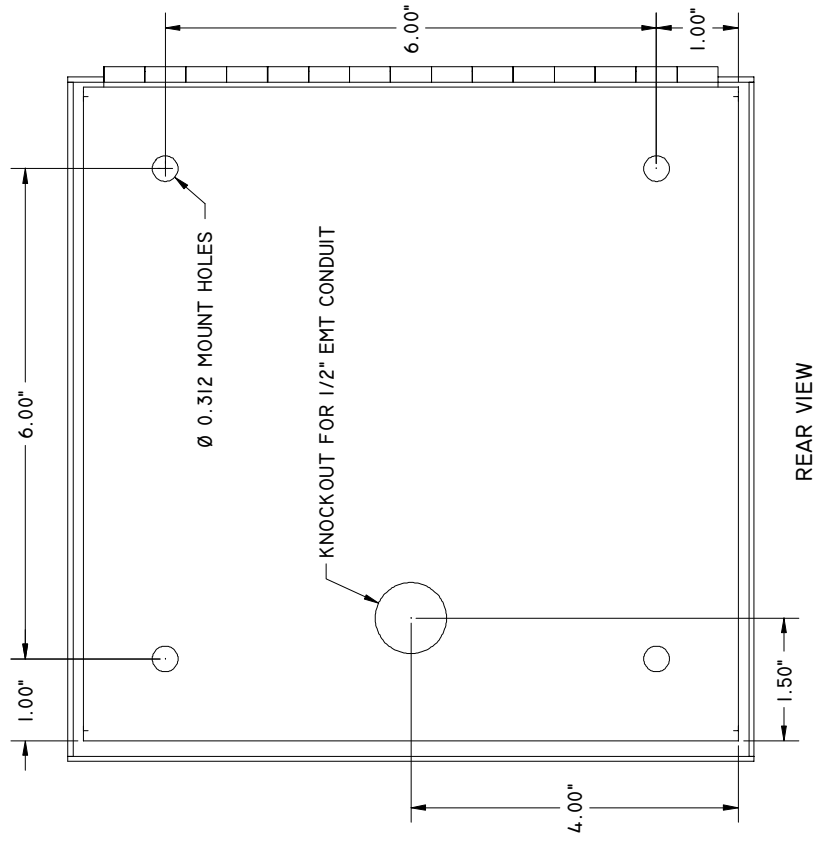
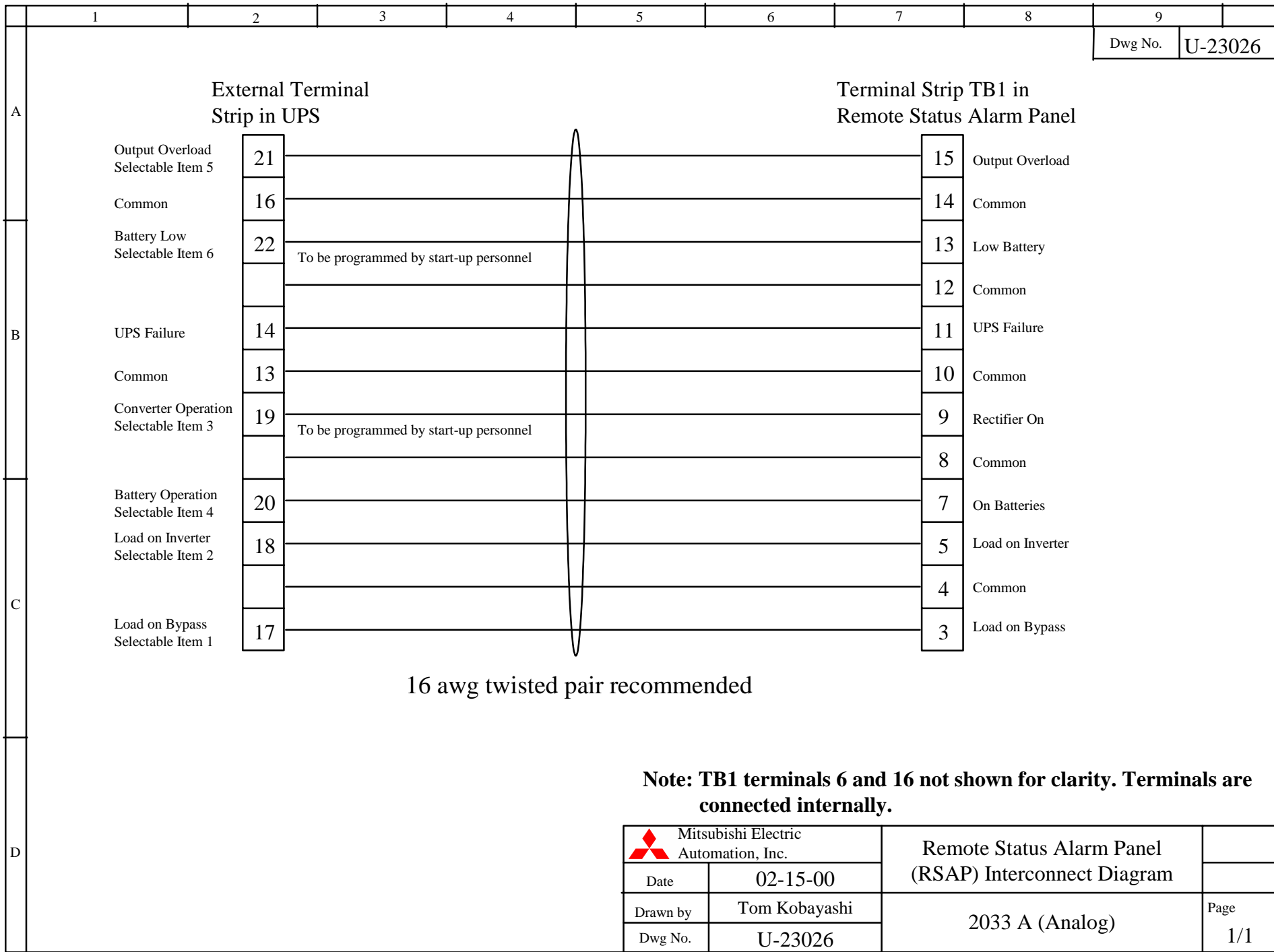

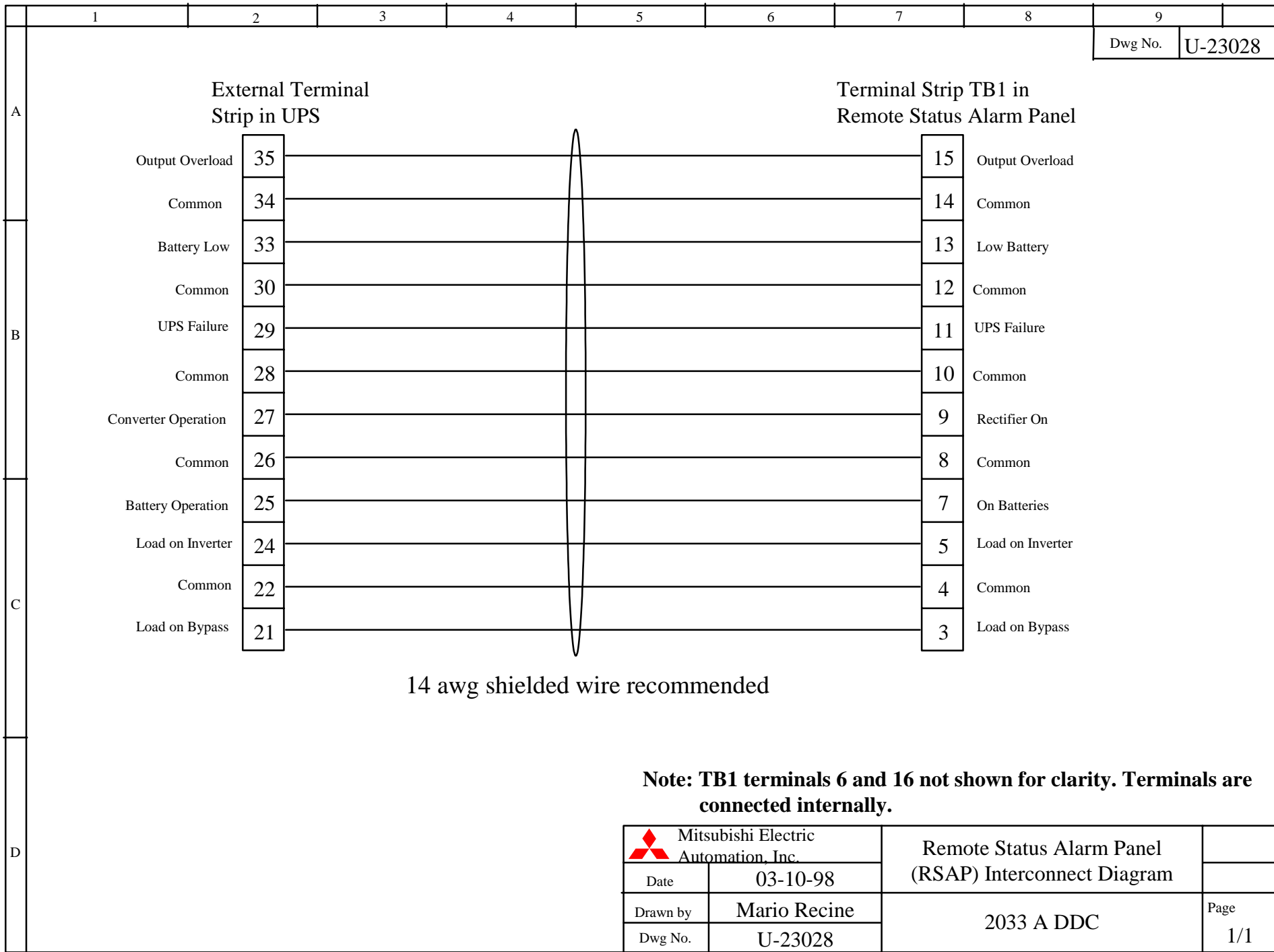


FIGURE 4




Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.

 Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	02-15-00	2033 A (Analog)	
Drawn by	Tom Kobayashi		
Dwg No.	U-23026		
		Page	1/1



Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.

 Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	03-10-98		
Drawn by	Mario Recine	2033 A DDC	Page
Dwg No.	U-23028		1/1

1

2

3

4

5

6

7

8

9

Dwg No.

U-23C012

A

External Terminal Strip in UPS

Terminal Strip TB1 in Remote Status Alarm Panel

Output Overload Common

18

Output Overload

17

Battery Low Common

16

Battery Low

15

UPS Failure Common

6

UPS Failure

5

Converter Operation Common

14

Converter Operation

13

Battery Operation Common

12

Battery Operation

11

Load on Inverter Common

8

Load on Inverter

7

Load on Bypass Common

10

Load on Bypass

9

16

Output Overload Common

15

Output Overload

14

Low Battery Common

13

Low Battery

12

UPS Failure Common

11

UPS Failure

10

Rectifier On Common

9

Rectifier On

8

On Batteries Common

7

On Batteries

6

Load on Inverter Common

5

Load on Inverter

4

Load on Bypass Common

3


Load on Bypass

B

C

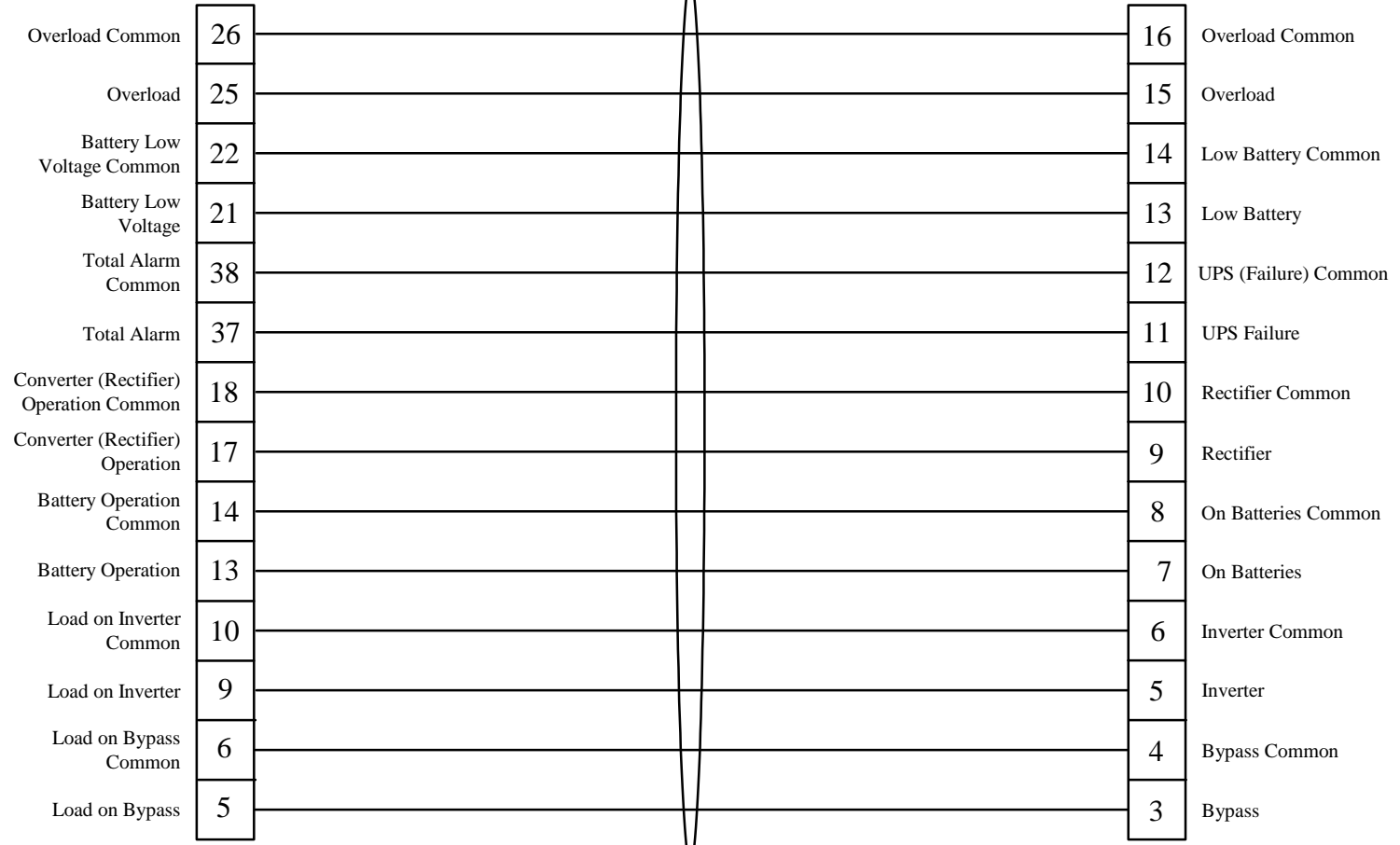
D

16 awg twisted pair recommended

 Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	02-15-00		
Drawn by	Tom Kobayashi	2033 C	Page
Dwg No.	U-23C012		1/1

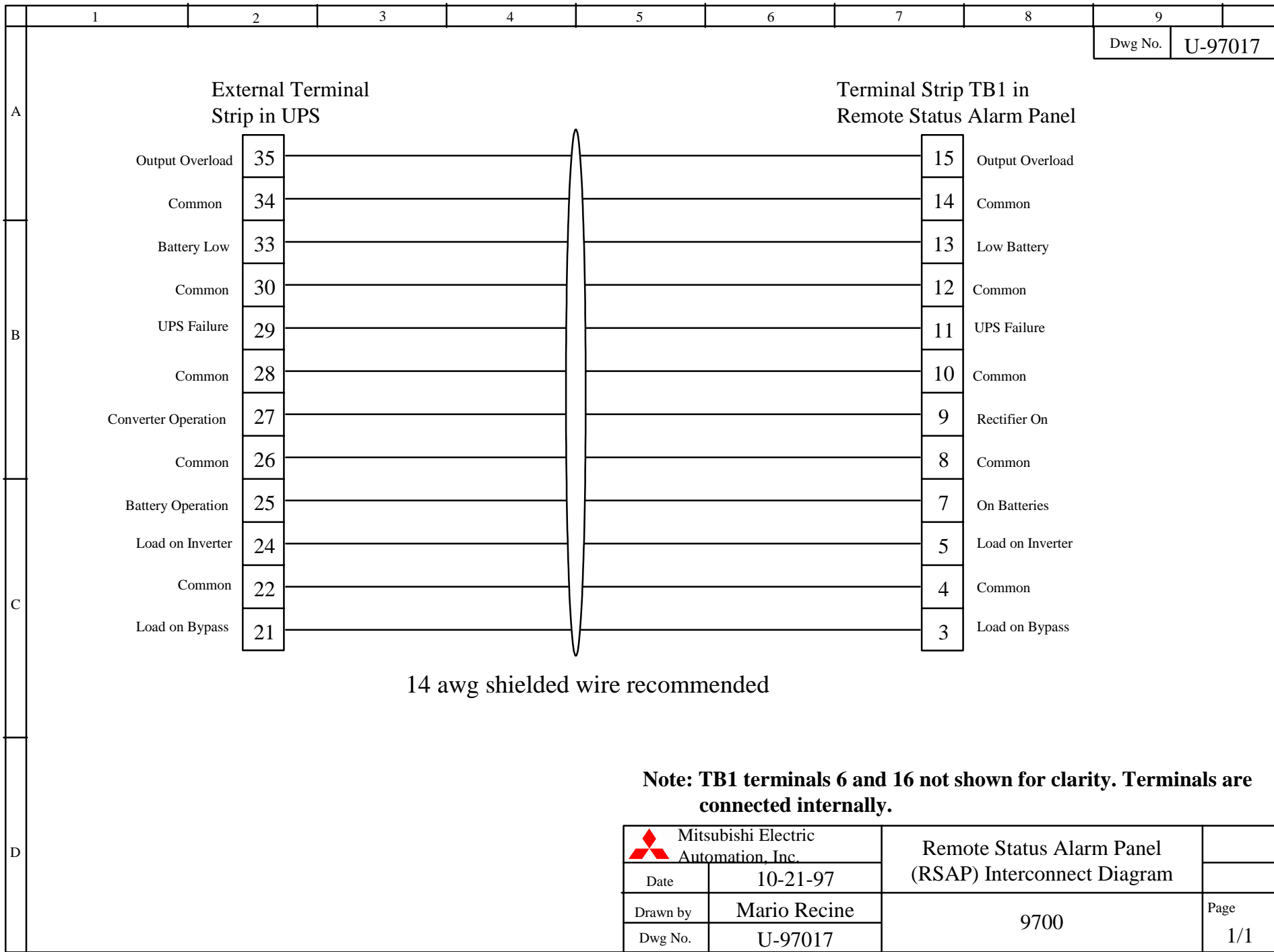
**External Terminal Strip
TN1(Output) in UPS**

**Terminal Strip TB1 in
Remote Status Alarm Panel**




14 AWG shielded wire recommended

	Mitsubishi Electric Automation, Inc.	Remote Status Alarm Panel (RSAP) Interconnect Diagram	Rev A
	Date		8/29/03
Drawn by	Carl E. Luecht	2033D/9800AD	Page
DWG No.	U-23D019		1/1

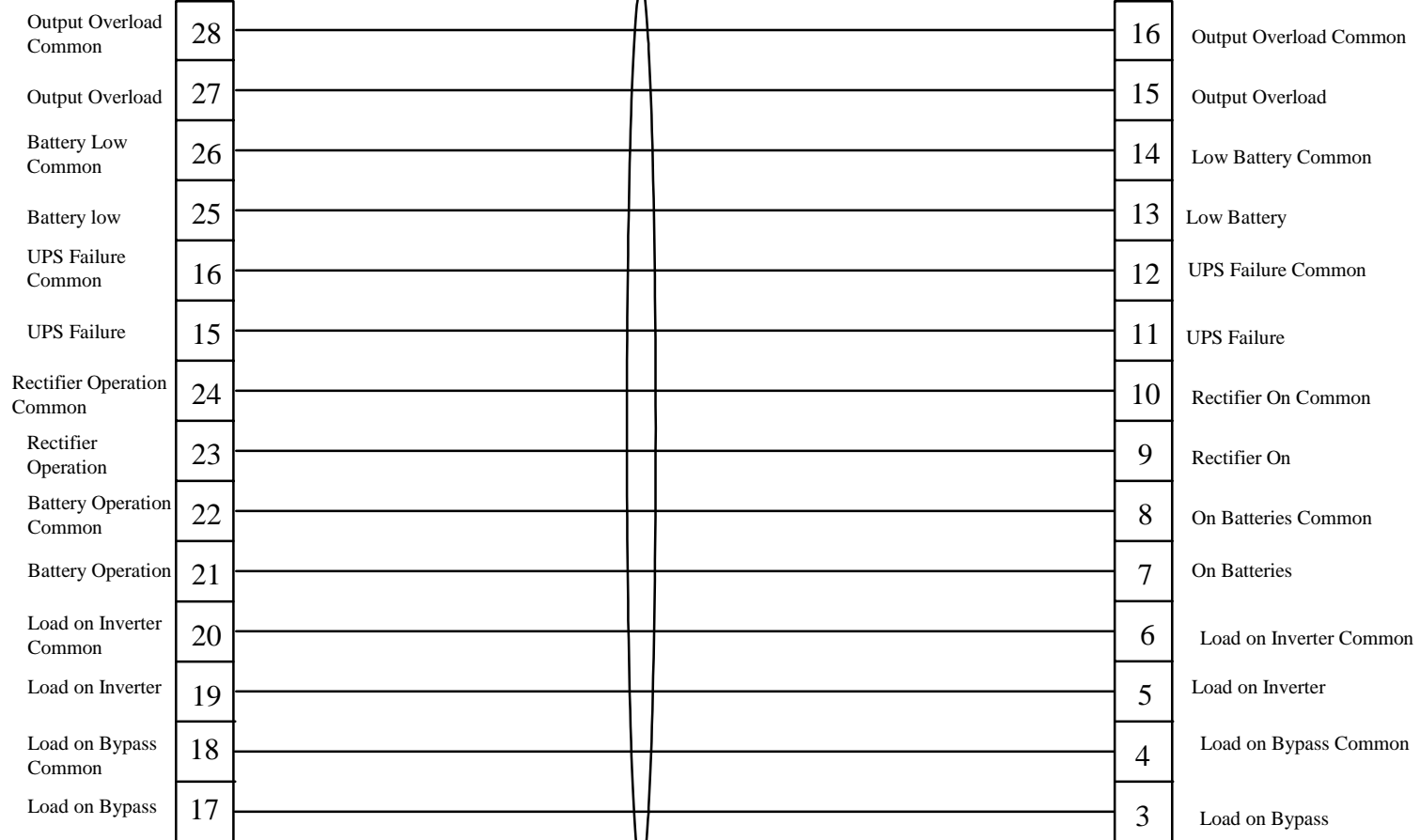


Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.


 Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	10-21-97		
Drawn by	Mario Recine	9700	Page
Dwg No.	U-97017		1/1

External Terminal Strip in UPS

Terminal Strip TB1 in Remote Status Alarm Panel



14 awg shielded wire recommended

 Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	07-09-99		
Drawn by	Mario Recine	9800A	Page
Dwg No.	U-98015		1/1